COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

July 16, 2008 Meeting

FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Robin Gumpert Notes: Erin Halton

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the "record" of the meeting, only a reminder for TMT members.

Review of Minutes/Agenda

The 7/2 official meeting minutes and facilitator notes had been posted to the web. No further changes were made to the notes during the meeting and they were considered final.

2008 Summer Treaty Fishing

Kyle Dittmer, CRITFC, reported on SOR 2008-C4, posted as a link to the TMT agenda. The request was for stable 1' elevation constraints for The Dalles, John Day, and Bonneville pools. Dittmer noted the abundant sockeye this year and said the next flight survey results would be available the afternoon of 7/16. Jim Adams, COE, said that the COE planned to operate the Bonneville pool under a 1.5' hard /1' soft constraint, The Dalles under a 3' hard /1' soft constraint(with emphasis on nighttime hours), and John Day under a 1.5' hard constraint, as was the case for the three previous treaty fishing requests.

Action/Next Steps: Dittmer said there may be one more week of treaty fishing. CRITFC will continue to inform the COE of expected dates/times for the summer treaty fishing season following each Tribal Compact meeting.

Dworshak Operations Update

Steve Hall, COE, reported on CEQUAL modeling and referred TMT to temperature graphs linked to the TMT agenda. He noted some disparity between predicted versus observed data and clarified that the COE will likely use an average Lower Granite tailwater target temperature of 67° F for near-term planning. The latest STP projection shows Dworshak outflows in the range of 13.1 kcfs will achieve an end of August 1535' elevation. The COE reported that a two-day gate test at Dworshak Dam is scheduled for next week, either on 7/22-23, or 7/23-24; this will require a need to hold the pool as high as possible, likely in the range of 1585-1588'. The COE apologized for the lateness in announcing the gate test, and clarified that each of the three required cycles for opening and closing each gate should take less than five minutes each. To meet the requirements of the test, the COE planned to operate the project at 12 kcfs. Hall added that as soon as tests were completed, the COE anticipates a shift to full power house plus spill.

Paul Wagner, NOAA, reported that the Salmon Managers discussed potential Dworshak operations of shifting to 14 kcfs or a staggered shift to 12 then 14 kcfs; Wagner said the COE's planned operation is acceptable to the Salmon Managers. Kyle Dittmer, CRITFC, added that the Nez Perce Tribe also supports the operation, so long as it will meet the end of August target elevation of 1535'. Regarding temperature targets, the USFWS recommended 47°F for Dworshak releases to accommodate the fish hatchery, with careful monitoring as the operation moves ahead. Dave Wills, USFWS, suggested referring to temperature formulas applied during 2007 operations of Lower Granite, as they were a successful management tool.

Action/ Next Steps:

- Jim Adams, COE, will send all TMT members the STP runs from 7/14.
- The COE will operate Dworshak at 12 kcfs through 7/24 (or whenever the gate test ends) and then shift to full power house plus spill (approximately 14 kcfs) in order to reach elevation 1535' by the end of August.
- TMT will discuss Dworshak operations as necessary and the COE will make adjustments as necessary as actual conditions unfold.
- Salmon Managers will bring information about the management strategy used in 2007 to the 7/30 TMT meeting.
- This item will be on the agenda for the 7/30 TMT meeting.

Libby & Hungry Horse Summer Operations

Jim Adams, COE, reported on Libby operations: the project dropped outflows from 17 to 15 kcfs on 7/11, then shifted from 15 to 14 kcfs at 2100 hours and down to 13 kcfs at 2200 hours on 7/12. As of 7/16, outflows at the project were holding at 13 kcfs, with an elevation of 2444.75'; inflows of 14.1 kcfs were filling the pool slightly. Amy Reese, COE, reported on graphs linked to the TMT agenda: she clarified that currently forecasted inflow traces and maintaining outflows of 13 kcfs through the end of August would result in a median elevation of 2437.4', a 25% exceedance elevation of 2440.3', and a 75% exceedance elevation of 2435.5'. Reese said that water supply forecasts have dropped slightly over the last few days.

Jim Litchfield, Montana, queried TMT members as to whether they objected to maintaining planned operations for Libby/Hungry Horse. Rick Kruger, Oregon, said that Oregon does not support the plan because there is no contingency for desired "make up" volumes later in the season but will not object to it. Jim Adams, COE, said operations will continue as described in the COE's July 8 email. The COE clarified that if modeling shows elevation levels will be at or above 2439' by the end of August, no adjustments will be made to the planned operation; should water supply forecasts indicate that outflows of 13 kcfs would result in a drop below the 2439' end of August elevation target, adjustments may be made per further regional discussion.

Rudd Turner, COE, reported that the COE is preparing to notify the court of the operation, as part of their reporting on hourly data for each month. Gayle Lear, COE, clarified that the specifics of Libby/Hungry Horse operations will be communicated to the court via a special July report specific to Libby/Hungry Horse. USFWS added that

they want to avoid a double peak this season; MT supports that position. As such, it was suggested that the COE confirm approval of the operation from the court as soon as possible.

Oregon clarified that they want any flows not released from either project to be made up from other stored water sources. The COE stated that they were not in a position to agree to Oregon's request at this point and said further analysis of this year's requirement to rollover 2007 operations will determine whether it may be possible to meet the request. Oregon also requested that COE modeling show historical comparisons of predicted vs. actual flows.

John Roache, BOR, reported on Hungry Horse operations: as planned, elevation at the project reached the top 1' by 7/14. Roache said that the latest ESP results (50% trace from the July 15 ESP) indicate the current outflows of 6.45 kcfs would have to be decreased to around 6.2 kcfs in order to not draft the project more than 20' from full by the end of August. However, Roache said that the current plan is to maintain discharges between 6.4 and 6.5 kcfs and re-evaluate as we progress through the summer. He reported that inflows were in the range of 4-5 kcfs and the current elevation was 3558.8'.

Action/ Next Steps:

- The COE will continue to operate Libby as described in the COE's July 8
 email.
- The COE said that they would look at ways to add historical forecasts, whisker bars and exceedance frequency ranges to future graphs/models; the COE planned to coordinate with Kruger on how to best meet the request.
- The COE will share procedural court reporting information with TMT at the 7/30 meeting; the COE will also provide feedback to OR as to their ability to pursue "make up" water in the event that a full 20' draft of Libby would not be met.

Upper Snake River Flow Augmentation

John Roache, BOR, reported on upper Snake River flow augmentation. Roache provided TMT with 2008 flow augmentation estimates, posted as a link to the agenda; he noted that natural flows amount to about 220 cfs daily beginning on April 3rd. Augmentation releases began on the Payette on June 28, the Boise on July 1 and above Milner on July 5

McNary Transport

Dan Feil, COE, reported that conditions were determined to be no longer "spring-like" (temps were 62°F or higher <u>and</u> flows were under 220 kcfs) as of 7/15. Feil clarified that the TSW gate hoists will allow closure of the TSWs for fish barge navigation purposes and not significantly disrupt spill. Spill outages will likely be only a half an hour or so as fish barges arrive and depart McNary. Regarding criteria for shifting from barge to truck transport, the COE was open to discussion around using passage data, but guidance in place at this point (per the Fish Operations Plan) is date specific to 8/16. TMT reviewed 2008 passage index data on the Fish Passage Center (FPC) website and observed that as

of 7/14, passage at McNary was dropping and will likely continue to decline. Feil said the COE proposed commencing transportation at McNary immediately following the TMT meeting and asked TMT members to weigh in on the matter. The following bullets summarize responses given during the meeting:

- NOAA: supports the start of transport on 7/16.
- OR: no objection, but they will closely watch TSW operation.
- ID: no objection; stated that the best scientific information available from NOAA data does not show a benefit to adult returns with the use of transport. However, as FOP takes precedence, there is no objection. Paul Wager, NOAA, clarified that the data Idaho referred to is from years little or no spill that may not be the best to use to compare to current conditions, as this year spill will be provided.
- MT: it is a good plan; NOAA and the COE should get data on truck versus barge survival.
- WA: no objection
- USFWS: no objection; asked whether truck transport had been considered. Dan Feil, COE, said at this point the COE planned to use the barges for transportation through 8/16 and use truck transport after 8/16, per the FOP.
- BOR: no objectionBPA: no objectionCRITFC: no objection.

Action/Next Steps: McNary Transportation will be discussed at the 7/30 TMT meeting. PIT tag data will help inform the discussion around survival associated with truck versus barge transport and TMT may revisit the date for switching to truck transport.

Emergency Protocols

Tony Norris, BPA, referred TMT to the Emergency Protocols posted as a link to the TMT agenda. Norris reported having received good comments from Paul Wager, NOAA, posted as a link and in redline format. Norris said that along with NOAA's edits, he planned to clarify that the Transmission and Fish Emergency Action Plans are still to be developed (by the BPA and COE respectively.) Norris reminded TMT that emergency action plans are living documents and will make that clear in the language of the Emergency Protocols. The following parties weighed in on the latest draft:

- NOAA: no objection
 USFWS: no objection
 BOR: no objection
 COE: no objection
 MT: no objection
- WA: no objectionID: no objection
- OR: abstain from weigh-in, as unable to provide review.
- CRITFC: plans to review and submit any edits directly to BPA.

Action/Next Steps: BPA will adopt the Emergency Protocols into the 2008 Water Management Plan. As this is a living document, edits may be sent in at any time. The COE will post the Emergency Protocols as currently written as an appendix to the Water Management Plan and will create sub-links for action plans.

Operations Review

Reservoirs: Grand Coulee was at 1289.3' and targeting elevation 1280' by the end of August. Hungry Horse was at 3558.8' with outflows in the range of 6.4-6.5 kcfs. Libby was operating at 2444.8', with inflows of 14 kcfs and outflows of 13 kcfs. Albeni Falls was at 2062.3' and passing inflows. Dworshak was at 1597.6' with inflows at 5.1 kcfs and outflows of 9.5 kcfs. Seven day average flows at McNary were 221 kcfs, Lower Granite flows were 54.1 kcfs and Bonneville average flows were 222.7 kcfs.

Other: Dan Feil, COE, said that from 7/9-22, the COE planned a soft constraint on McNary pool elevation range: 337-338.5', which is within the normal pool operating range, to support archeological work being conducted in the pool near Hood Park. Also, summer biological tests are ending: Ice Harbor will shift to 45 kcfs spill during the day and gas cap spill atnight for 7/17 through 8/31; McNary will continue at 40% / 60% spill levels, on a two day alternating schedule. John Day is moving to 30% 24hrs/day, with no spill through the TSWs. Bonneville is targeted to be at 75 kcfs during the day on 7/21, down from 85 kcfs. Lower Monumental is targeted to be at 17 kcfs through 3 bays. Little Goose will continue to use three alternate patterns at 30%.

<u>Fish</u>: Cindy LeFleur, WA, reported that summer Chinook passage numbers are at stable, low levels and that Steelhead were passing Bonneville at rates of 5-8,000 per day and are expected to continue at that rate through August. Paul Wagner, NOAA, reported that Sockeye numbers are still high; TMT was referred to a memo posted on the FPC website, with some analysis as to the high numbers for this year. Wagner said that ocean conditions have been good and this should be considered in the analysis. Juveniles are done passing, and sub yearlings are winding down, with Lower Granite seeing passage of less than 5,000 per day, and Lower Monumental passage at 500 per day. McNary passage is at 46,000 and is likely seeing the tail end of passage season.

Action: A request was made to the FPC to consider ocean conditions in its analysis of the high sockeye numbers, as this is likely a contributing factor.

<u>Power System:</u> Nothing to report at this time.

Water Quality: Jim Adams, COE, reported that TDG exceedances have diminished over the last couple of weeks. He added that spill over the past weekend at Lower Monumental had dropped well below the targeted 17 kcfs, and TMT requested better management of this in the future. BPA acknowledged that the transition to lessen volumes of water in the system could have been handled better and said that instructional modifications were sent to remind schedulers to make correction, and this will be reported to the court. Idaho expressed a concern for the biological impacts associated with dramatic flow fluctuations.

Next TMT Meeting: 7/30 face-to-face at NOAA Fisheries

Agenda Items include:

- Finalize notes/minutes
- 2008 Summer Treaty Fishing
- Dworshak Operations
- Libby/Hungry Horse Follow-up
- McNary Transport, as needed
- Operations Review

Columbia River Regional Forum Technical Management Team Meeting July 16, 2008

1. Introduction

Today's TMT meeting was chaired by Jim Adams (COE) and facilitated by Robin Gumpert (DS Consulting) with representatives of NOAA, USFWS, BOR, COE, BPA, CRITFC, Idaho, Montana, Oregon, Washington and others participating. The following is a summary (not a verbatim transcript) of the topics discussed and decisions made at the meeting. Anyone with questions or comments about these notes should provide them to the TMT chair or bring them to the next meeting.

2. Review Meeting Minutes

There were no comments on either the facilitator's notes or the official minutes for the July 2 TMT meeting. Both were deemed final.

3. 2008 Summer Treaty Fishery – SOR 2008-C4

Kyle Dittmer (CRITFC) presented this SOR which CRITFC submitted to the COE late last week. This fishery runs from July 15-17 and from July 22-24. The SOR calls for a 1-foot elevation band as a hard constraint on operation of the pools at Bonneville, John Day and The Dalles dams. Last week's net flight sponsored by CRITFC indicated there are over 300 nets in the river, with 39% of those at Bonneville, 22% at The Dalles and 39% at John Day.

The COE will provide the same conditions for this fishery as it has for the two previous treaty fisheries this year, which includes a 1-foot soft constraint and 1.5-foot hard constraint on Bonneville pool operations. Normal operating range at The Dalles pool is 3 feet, but the COE will operate it within a 1.5-foot range as a soft constraint for the fishery, with emphasis on the evening hours. John Day pool will continue to operate within its normal 1.5-foot range, Adams said.

4. Dworshak Operations

Steve Hall (COE) presented the most recent CEQUAL modeling of potential Dworshak operations. There's some disparity between forecasted and observed data, with actual temperatures higher than forecasted. Therefore the COE is forecasting temperatures that are approximately 2 degrees F warmer than modeled data. For example, the graph of model results now suggests temperatures will stay below 65 degrees F, but the COE predicts that range will actually rise to 67 degrees F.

Flows were modeled as increasing to 12 kcfs on July 16 and remaining constant, but the COE is aware flows will need to go higher than that in order to get the reservoir elevation down to 1,535 feet by August 31. The latest STP projection shows flat flows of 13.1 kcfs are needed to reach elevation 1,535 feet by Aug. 31.

The COE has scheduled a dam safety Spillway Gate Trunnion friction test for July 22-24, which will involve opening each of the Spillway gates 2 feet, then immediately closing them again three times for each test. Ensuring that the gates are functioning correctly is a dam safety issue. The COE is attempting to keep the pool elevation above 1,585-1,588 feet in order to obtain valid test results. Outflows of 12 kcfs should maintain the pool at or above that elevation through July 25. The COE apologized for scheduling this test so late in the season, there was a delay caused by the lengthy contracting process required. The COE proposed to operate Dworshak at 12 kcfs outflows until the test is completed, then go immediately to full spill below the TDG cap of 110%, a discharge of approximately 14 kcfs or more.

The Salmon Managers had discussed this operation before today's meeting. Initially they recommended 14 kcfs outflows, with an alternative of 12 kcfs outflows followed immediately by 14 kcfs, Paul Wagner said. The Salmon Managers agreed that either operation would be acceptable. Kyle Dittmer (CRITFC) informed TMT that the Nez Perce Tribe, although not represented in today's meeting, has indicated it would not object to the proposed operation as long as Dworshak reservoir reaches elevation 1,535 feet by end August. With that information, the Salmon Managers were able to reach consensus on the COE's proposed operation for Dworshak today.

Discussion then turned to temperature management. Currently Dworshak is operating now at full powerhouse, with the big unit in undershot mode and two small units in overshot mode. The resulting outflow temperature is 47 degrees F as requested previously by the hatchery. The outflow temperatures have maintained Lower Granite tailwater temperatures below 65 degrees F, well below the 68 degrees F criteria at Lower Granite tailwater.

Jim Adams asked the Salmon Managers what temperature they would like to target. For purposes of the hatchery, 47 degrees F keeps fish growing on schedule, Dave Wills, **USFWS**, said. If the water temperature rises to 67 degrees F at Lower Granite, the operation could be changed to one small unit in overshot mode and one in undershot, Wagner said. The Salmon Managers didn't discuss the impacts of travel time from Dworshak to Lower Granite, Wills said. They want to look at applying last year's formula to this year. The reservoir appears to be considerably warmer at deeper elevations (1,400-1,450 feet) than in previous years, Adams pointed out. Undershot mode is releasing water of 43-44 degrees F, while in previous years Dworshak releases in undershot mode were around 41 degrees F this time of year.

Tony Norris, **BPA**, asked whether 14 kcfs is the highest flow that can be discharged under the gas cap. Using the spillway might allow Dworshak outflows to go as high as 15 kcfs, Adams replied. Overall STP volumes are higher than the water supply forecast for April to September, so this forecast is probably conservative – meaning flows might have to be reduced later to avoid overdrafting the reservoir, Hall said.

If the gages for the trunnion test can be successfully mounted on July 22, the switch to 14 kcfs outflows will happen the night of July 23 or 24. The COE will keep an eye on reservoir elevation and inform TMT of the actual schedule for next week's test. The Salmon Managers will review last year's process for setting temperature triggers at Lower Granite and Dworshak. TMT will revisit this issue at its next meeting.

5. Libby/Hungry Horse Operations Update

A. Libby Dam. After the July 2 TMT meeting, the COE presented its proposed operation to IT on July 10 and, hearing no objections, dropped Libby outflows from 17 to 15 kcfs on July 11 at 2100 hours. Because ramp rates change at 16 kcfs, the COE stepped down from 15 to 14 kcfs outflows on July 12 at 2100 hours, then from 14 to 13 kcfs at 2200 hours, Adams reported. Libby outflows have remained at 13 kcfs, with a current forebay elevation of 2,444.75 feet. Inflows (daily average) are 14.1 kcfs.

Amy Reese, COE Seattle, presented modeling of Libby operations. Modeling of 13 kcfs outflows through August 31 showed a median end of August elevation of 2,437.4 feet, about 1.5 feet below the target elevation of 2,439 feet. The 75% exceedance elevation is 2,435.5 feet and the 25% exceedance elevation is 2,440.3 feet, meaning half the traces modeled were between those two elevations.

Jim Litchfield, **Montana**, asked whether TMT still has consensus on the previously negotiated plan to maintain Libby outflows at 13 kcfs unless it looks like the reservoir will be drafted below elevation 2,439 feet. **Oregon** didn't object to the plan, although it didn't support the operation either. The lack of support was due to a lack of contingencies to make up the 20-foot drafts at Libby and Hungry Horse if inflows don't materialize.

With Oregon's statement on the record, the **COE**'s next step to notify the Department of Justice and ultimately the court that regional agreement has been reached on a compromise operation. The COE submits monthly reports to the court consisting of tables showing hourly elevations and spill levels are in accordance with 2007 operations, with a footnoted explanation for each variance.

Because the June report was recently sent, the COE will need to notify the court separately of today's agreement.

If inflows turn out to be greater than forecasted, and water is left in the reservoir, **Oregon** requested that water be made up from some other stored water sources. The **COE** was not in a position to agree to that request today, and will review whether it is in accordance with 2007 operations. Otherwise, the operation discussed today will move forward.

B. Hungry Horse Dam. Using last week's proposed operation, **BOR** predicted that Hungry Horse reservoir would be within a foot of full by July 14, and the prediction materialized. Modeling showed that flows of 6.4-6.5 kcfs will be needed to draft the reservoir to elevation 3,540 feet by end August. On July 14, the reservoir began releasing between 6.4 and 6.5 kcfs. The BOR's proposed operation is to continue releasing 6.4-6.5 kcfs. Inflows are currently 4-5 kcfs. The reservoir is close to full and slowly drafting.

Rick Kruger, **Oregon**, requested a graph that superimposes actual flows on projections, for the sake of comparison. Tony Norris, BPA, pulled up ESP volume comparisons from the TMT web page as a possible response to this inquiry. Amy Reese said she would put together a graph. She and Kruger agreed to work together outside of TMT.

6. Upper Snake River Flow Augmentation

The full 487 kaf of flow augmentation will be available according to the latest BOR estimates. John Roache presented a table showing a break-down of where the expected water volumes are originating from... Augmentation releases began on the Payette on June 28, the Boise on July 1 and above Milner on July 5.

7. McNary Transportation

The Fish Passage Plan states that transport will begin at McNary when conditions are no longer springlike, defined as water temperatures of approximately 62 degrees or higher and flows of 220 kcfs or less. Dan Feil showed TMT a plot of mean daily discharges from McNary, linked to today's agenda. As of yesterday both conditions were met, so the **COE** proposed that transportation operations begin immediately.

NOAA and USFWS had no objection. Rick Kruger questioned whether transport would disrupt operation of the TSWs, which would conflict with FOP instructions that transportation of juvenile fish will begin if it doesn't significantly conflict with operating the TSWs. Installation of a gate hoists earlier this year means the TSWs can be opened and closed in just a few minutes, so extended TSW outages to accommodate fish barge navigation are no longer an issue, Feil

said. **Oregon** didn't object to the proposed operation but will watch TSW operations closely.

Idaho didn't object because the operation is in accordance with legal agreements, but believes the operation is not a good idea. Dave Wills asked whether switching to truck transport would avoid interrupting TSW operation. The FOP states that barges will be used until Aug.16 and trucks after Aug.16, Feil replied. There are too many fish in the river now to load them in trucks. The date is currently the only guidance, although a different trigger based on passage counts could be worked out, Feil said. Truck transportation is less of an issue for subyearlings than yearlings because of the way imprinting works, Wagner noted.

Washington, CRITFC, BOR, BPA and Montana voiced no objections to starting transport operations as soon as possible. Any data on truck vs. barge survival would be helpful in discussing the merits of switching to truck transport, Litchfield said. The COE will begin transport operations tomorrow morning, July 17. TMT will revisit this issue at its next meeting.

8. Emergency Protocols

Tony Norris presented the latest iteration of BPA's emergency protocols, with comments from **NOAA** recently incorporated. Dave Wills, **USFWS**, said he'd reviewed the comments and the latest iteration, which looked fine. He suggested presenting the protocols in a separate attachment that can be easily updated. **Oregon** had no comment on the protocols and doesn't have time to review the document. **Idaho, Montana** and **Washington** have reviewed it and voiced no objections to the current iteration. **CRITFC** intends to comment but wasn't ready to do so today. The documents will be posted under appendix 1 of the 2008 Water Management Plan as attachments so they can be printed separately. These documents can be revised at any time as needed, Norris emphasized.

9. Operations Review

a. Reservoirs. Grand Coulee is at elevation 1,289.3 feet. The reservoir reached 1,290 feet or full on July 14, and is now slowly drafting toward a 1,280 foot elevation target for end August.

<u>Hungry Horse</u> is at elevation 3,558.8 feet. Outflows are 6.4-6.5 kcfs.

<u>Libby</u> is at elevation 2,444.8 feet with inflows of 14 kcfs and outflows of 13 kcfs, filling slowly. Inflows are dropping and the reservoir will begin drafting soon.

Albeni Falls is at elevation 2,062.3 feet at the Hope gage, passing inflows of 30 kcfs.

<u>Dworshak</u> is at elevation 1,597.6 feet. Inflows dropped to 5.1 kcfs yesterday; outflows are 9.5 kcfs.

Inflows at <u>Lower Granite</u> are 54.1 kcfs (7-day average). Inflows at <u>McNary</u> are a 7-day average of 221 kcfs and dropping, as are inflows at <u>Bonneville</u>, now 222.7 kcfs.

Due to an archaological investigation in the McNary pool, there will be a soft constraint of 337-338.5 feet on pool elevation from July 9-22, Dan Feil reported. McNary continues to alternate between 40% and 60% spill levels according to a randomized schedule which will become systematic later this week as testing concludes. The new schedule will consist of two days of 40% spill followed by two days of 60% spill, alternating through Aug. 31.

Many summer tests are ending this week, which means there will be spill changes at the projects, Feil said. Beginning the morning of July 17 through the remainder of the spill season, <u>Ice Harbor</u> will spill 45 kcfs during the daytime and to the gas cap at night.

John Day has been alternating between 30% and 40% spill levels for summer testing and will go to 30% spill for the rest of the season without the TSWs operating. The current spill pattern for 30% spill won't reach the TSW bays under current flow conditions, as long as total river flow remains below 180 kcfs.

As of July 21, <u>Bonneville</u> will switch to 75 kcfs spill during the daytime. It has been spilling 85 kcfs during the day for most of the summer, in accordance with the FOP.

<u>Lower Monumental</u> is no longer on the bulk spill/uniform spill test and has begun spilling 17 kcfs in a single pattern through three bays, the TSW bay plus bays 2 and 6.

<u>Little Goose</u> will continue with three alternating spill patterns at 30% for the rest of the spill season.

b. Fish. Summer Chinook numbers are stabilizing at around 800 fish per day at Bonneville, while steelhead numbers there increased to 5,000 per day recently. Chinook adult numbers will stay stable for a while, then increase at the end of August. Sockeye numbers remain phenomenal. It's unclear how much of the sockeye boom is due to increased hatchery production vs. natural production. The high sockeye counts (750,000 at Lower Granite, way beyond expectations) have been attributed to better migration conditions, successful hatchery production plans, and good timing this year in terms of ocean productivity.

In terms of juvenile passage, yearling Chinook migrations are nearly finished. Subyearling migration is active at present, with around 5,000 fish

passing Lower Granite per day (according to index counts), 500 at Lower Monumental, and 46,000 at McNary. Subyearling passage is declining at McNary but will probably continue at John Day and Bonneville for the next six weeks.

- **c. Power System.** There was nothing to report today.
- **d. Water Quality.** Previously high TDG levels have declined with flow volumes, Adams said. There were no exceedances in the system for a couple of days, then a few recently at the Camas-Washougal gage below Bonneville Dam.

There was discussion of recent conditions at Lower Monumental Dam, when spill recently dropped from 17 to 7 kcfs due to human error. BPA has issued instructions alerting its duty schedulers to spill constraints, and the system is already being operated differently. Idaho asked whether there would be a report to the court on remedial actions taken at Lower Monumental Dam; the response was yes. While the resulting fluctuations were within legal limits and therefore acceptable, Idaho expressed concern that such a large change in just a few hours might not be the best way to keep fish moving through the system.

10. Next Meeting

Shane Scott

The next regularly scheduled TMT meeting will be on July 16 at NOAA's Portland offices. The 2008 summer treaty fishery, McNary transportation, Dworshak operations, follow-up on court notification regarding the Libby and Hungry Horse compromise, and the usual operations review will be on the agenda. This summary prepared by consultant and writer Pat Vivian.

Name Paul Wagner` Dave Wills John Roache Jim Adams Tony Norris Dan Feil Rudd Turner Bob Buchholz Scott Boyd Kyle Dittmer Russ George Rick Kruger	Affiliation NOAA USFWS BOR COE BPA COE
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PPC

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